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Futures

NPN

The Quality Management Style at Diamond Shamrock

Roger R. Hemminghaus, CEO

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Elizabeth Santelli

Regional Sales Offices:
See page facing inside back cover.

Regional News Offices:
East: J. Richard Shaner, P.O. Box 1476, Morristown, NJ 07962-1476. (201) 428-2902
Midwest: Steve Dwyer, 950 Lee St., Des Plaines, IL 60016. (708) 296-0770
South: Angel Abcede, 950 Lee St., Des Plaines, IL 60016. (708) 296-0770
West: Mark Emond, P.O. Box 8130, Anaheim, CA 92812-0130. (714) 774-5598

Editor's Viewpoint

Looking at the new photograph above, you may already have guessed there's been a change in the editorial staffing at *NPN*.

A few weeks ago, Peggy Smedley, editorial director of Hunter Publishing Co.'s petroleum division and editor in chief of *NPN*, accepted a position with another publishing company. Peggy assures us she made this decision only after many painstaking hours of deliberation with her family.

It was a sad moment—for myself, for the entire staff of *NPN* and for the petroleum division—as well as for her many friends and colleagues here at Hunter. I'm also certain that many of you in the industry who got to know Peggy personally and were impressed—as we were—by her driving energy, enthusiasm and dedication, share our regret and join us in wishing her the best of fortune in her new job.

Change often embodies both gain and loss. And, while *NPN* has lost a valued editorial talent, I can assure you that the *NPN* tradition of editorial quality and leadership that has been our trademark for over 80 years will continue without missing a beat.

There are good reasons for this. The *NPN* staff of editors and reporters is the most talented and experienced in the petroleum industry today. This includes our able and knowledgeable field staff: Dick Shaner in the East, Mark Emond in the West and Angel Abcede covering the South. Here at the home office Steve Dwyer, Midwest reporter, Greg Lindenberg, copy editor and Alicia Lasek, newly promoted to staff reporter, epitomize the best in industry journalism, combining commitment, experience and energy. On the production side, senior production editor Julie McDonough (another recent promotion) is responsible for many of the improvements in graphics and design you have seen as you flip through the pages of *NPN* every month.

We have also strengthed the overall management of our news and feature operation with the addition of Howard Shingle as *NPN's* new managing editor. As a former staff reporter and current editor of our two sister publications, *Fuel Oil News* and *Petroleum/C-Store Products*, Howard brings experience and outstanding organizational ability to his new assignment.

My own background at Hunter includes 10 years as editor of another sister publication, *Service Station Management*, and six years as senior editor of *NPN*. As many of you know, in addition to my monthly assignments as a news and feature writer and editor, I have been supervising the annual production of our *NPN Factbook*.

Before Peggy left, she and the entire staff of *NPN* mapped out and set in motion an editorial plan for 1992 that is consistent with the magazine's tradition of first-rate news reporting, research and analysis. We'll also be breaking new ground this year with editorial features and indepth research that will focus on the trends and developments that are shaping our marketplace in the year—and years—ahead.

We're counting on your continued support, as well as your frank appraisals of our efforts, to help us keep *NPN* as fresh, as informative and as useful in your day-to-day operations as it has been for the past 83 years.

—Don Smith

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• TRENDS

Is Bioremediation the Answer to Soil Cleanups?

The cleanup of a leaking underground storage tank can be a horror, imagined and real for petroleum marketers. Costs can be critical or fatal and no doubt haunt many marketers' nightmares.

Most cleanup methods are based on removing the contaminant, usually gasoline, physically. The bad soil is hauled away or the contaminant is mechanically extracted, onsite or elsewhere, often by evaporation.

With bioremediation, microorganisms in the soil or water onsite literally eat the contaminant and break it down into its constituent elements. As applied to ground contamination, it's a rapidly developing science that appears to be very promising.

The Petroleum Equipment Institute (PEI) reports that interest in bioremediation among its members is growing. Says Robert N. Renkes, executive vice president, in his *TulsaLetter*, "The Environmental Protection Agency (EPA), PEI members and tank owners are searching for faster and less-expensive ways to achieve the cleanup goals while protecting the environment and public health at the same time. Some think bioremediation may be the answer for solving some of our contamination problems."

EPA recently reported 108,821 confirmed tank releases in the United States, but only 21,278 cleanups completed. The agency says further that leaks are being confirmed more frequently than cleanups are being accomplished, widening the gap and worsening the problem.

The effectiveness of bioremediation has been demonstrated in what an engineer for California's Regional Water Quality Control Board calls "the granddaddy of all bioremediation projects." At a former 40-acre, 50-year-old Unocal tank farm near Torrance, Calif., more than 300,000-cu.yd. of soil, enough to cover 57 football fields with dirt 3-ft. deep, was cleaned by bioremediation. The site is being redeveloped into a shopping center and light industrial park.

The project was accomplished by ECOVA Corp., an onsite hazardous waste management company headquartered in Redmond, Wash. The company, founded in 1986, says it is responsible for cleaning up more than 500,000-cu.yd. of soil and millions of gallons of water using bioremediation processes.

At the abandoned tank farm, a proprietary process was used to reduce petroleum contamination by up to 94%, the company says, from levels as high as 15,000-ppm (parts per million) to average levels below 1,000-ppm.

Soils beneath the former reservoir berm and under a concrete reservoir liner at the tank farm contained nonhazardous petroleum hydrocarbons, such as bunker C fuel oils. Unocal funded the cleanup at a cost of $45/cu.yd., or about $13.5-million, ECOVA reports.

ECOVA says offsite disposal to a landfill would have cost between $60 and $300/cu.yd. The enormous volume of soil would have required more than 50,000 trucks to transport the contaminated soil to a landfill.

To carry out the cleanup expeditiously, a mobile laboratory was transported to the site to provide rapid analytical results and biological monitoring, and 27 treatment units were set up at various onsite locations. Engineers determined the proper oxygen, water and nutrient additions to support a nine to 12-week treatment time. More than 35,000 soil samples were analyzed.

ECOVA engineers identified the presence of a dominant organism possessing the ability to metabolize a wide range of hydrocarbon compounds. The activities of this organism were closely monitored during the remedial program to ensure its effectiveness.

The customer was happy. John Murphy, president of Unocal's Land & Development Co., says, "They [ECOVA] saved us tremendous costs which would have been necessary with the use of conventional technologies and an offsite laboratory."

Necessity being the mother of invention, bioremediation could turn out to be the solution, or at least an important option, to what seems like an almost insurmountable hydrocarbon cleanup problem, and a lifesaver for many marketers.

—By Mark Emond

• MARKETPLACE AT A GLANCE

AVERAGE GASOLINE PRICES IN THE U.S. (per gal.)

NOVEMBER	Gasoline (All types)	Leaded Regular	Unleaded Regular	Unleaded Premium
U.S. City Avg.	$1.193	*	$1.134	$1.318
Regions				
Northeast	1.271	*	1.192	1.403
North Central	1.171	*	1.134	1.295
South	1.181	*	1.110	1.286
West	1.162	*	1.121	1.297

** Data no longer collected or available.*
Source: U.S. Dept. of Labor, Bureau of Labor Statistics.

STOCKS (Add 000 bbl.)

	1/3/92	1/4/91
Gasoline (Total) [a]	187,735	190,370
Unleaded	156,293	154,570
Jet Kerosine	38,128	38,394
Distillates	131,311	117,324
Residual	41,594	42,746

[a] *Leaded regular prices no longer collected by Bureau of Labor Statistics.*

Diesel Fuel Additives: Growing Business for Petroleum Marketers

While refiners await the onset of environmental regs requiring them to upgrade diesel fuel, many oil marketers and additive manufacturers and blenders are developing their own markets for home-brewed premium diesel fuels. Refiners for the most part do not seem to have gotten the message as of yet.

The market for diesel fuel additives added downstream, that is, after the fuel leaves the refinery or pipeline, is estimated to be in the range of $75-million to $100-million annually and growing 25%/yr. for the past four or five years. A new diesel additive supplier reports tripling sales for the past three years.

Some agricultural cooperatives have long produced premium diesel to provide their customers a product most refiners don't generally supply. Among them are Cenex and Farmland. More recently, some truckstop chains appear to have been among the first to recognize the value of diesel fuel additives to their trucker customers. Some national chains that now provide premium diesel are Burns Bros., Flying J and Petro.

Most refiners continue to provide only a generic, regular-grade diesel fuel, a fungible commodity, apparently convinced they can't recover the costs of premium diesel in the cost-conscious trucker market. (For a report on big changes coming in the diesel fuel market, including refinery-made premium diesel, see *NPN*—Sept. '91, p71.) Almost the only existing diesel fuel standards are imposed by pipelines.

Refiners lavish increasing attention on premium gasolines, and their neglect of diesel fuel grows apace. Diesel fuel often bears the brunt of strains put on the refining processes by more-intensive gasoline production. Cracked diesel fuels are unstable, corrosive and high in polluting aromatics. Diesel fuel is what's left over after refiners make gasoline. Other distillates, such as jet fuel and heating oil, command higher prices.

It is perhaps understandable that refiners concentrate on gasoline when sales outstrip those of diesel fuel more than five to one. On-road diesel fuel sales amounted to 21.4-billion gal. in the United States in 1990 (see chart on page 44), compared with consumption of 111-billion gal. of gasoline. Off-highway diesel sales were another 1.8-billion gal.

There are widespread reports of diesel fuels of dubious quality, particularly in winter when fuels gel and freeze. Fuel filters clog. Injectors plug up. Some companies still treat diesel fuel and heating oil as pretty much the same thing. These are all opportunities for marketers.

One additive blender says the winter diesel additive market is "exploding." One reason: the proper additive eliminates or reduces the use of higher-priced kerosine.

Marketers are learning that for almost every diesel fuel problem, there is an additive solution. In the vacuum created by refiners, they are taking the initiative, encouraged by additive suppliers, to provide their customers with a large variety of premium products designed to overcome the common failings of undoctored fuels.

Many additives to sell

In four major groups, there are 15 to 20 classes of diesel fuel additives, as follows:

- Contamination control—biocides, demulsifiers and dehazers, rust and corrosion inhibitors.
- Fuel stability—metal detectors, oxidation inhibitors, residue dispersants.
- Engine performance—detergents, dispersants, cetane improvers, smoke suppressants.
- Fuel handling—Pour-point depressants, cloud-point depressants, deicers, degummers, antifoamers.

These are recognized and technically sound additives. However, certain claims sometimes made for particular products, especially those sold over the counter in cans or bottles, stretch credulity.

Diesel fuel additives have been saddled with a bad name, but this is turning around. Trustworthy marketers and blenders supply products that live up to their billings, and they stand behind them with laboratory tests corroborating their claims.

Diesel fleets are the prime customers. There are commercial truckers, municipalities, transit authorities, airlines, taxis, utilities, military and marinas. Some diesel-fuel additive suppliers market directly to fleets, particularly the national ones. However, marketers who know their local customers are usually in a better position to blend the products and make the sales.

Some diesel fuels are sold all year round. They contain cetane improvers, detergents and other additives that can improve mileage and maintain cleaner engines.

But most diesel additives are sold in the winter to lower the pour point in cold

By Mark Emond
Staff Reporter

weather, preventing icing and wax gumming. Traditionally this has been done by blending No. 1 diesel (kerojet) with No. 2 diesel. Various mixes are used, such as 50-50 and 70-30 of No. 2 and No. 1. Now additives can reduce or eliminate the No. 1 at a considerable saving.

No. 1 is more expensive, often 10¢-20¢/gal. or more. Savings on the costs of No. 1 easily offset the "treat" cost of the additive, which ranges from less than 1¢/gal. to 2¢/gal. Kerosine also has less heat per gal. in British thermal units (Btu), so that the more No. 2 is burned, the more mileage is obtained.

Estimates of the proportion of additized diesel sold in the winter in northern states vary from one-fourth to one-half. In the summer, only 5-10% is additized, some say. Whatever the actual sales may be, the market has great additional potential. The effectiveness of diesel additives is getting around, and they are reported to be increasingly selling themselves.

For additive suppliers, the big sales months are September, October and November, with marketers laying in supplies for the winter, and, to a lesser extent, February, March and April, with marketers getting ready to supply agricultural customers for spring planting. Extended payment is sometimes provided.

Major additive manufacturers mentioned in the trade are Lubrizol, Ethyl, Esso Chemical and Malco. Additive blenders mentioned are ValvTect, Starreon, Arol Chemical Products, Power Service, Primrose Oil and Howes Premium. All are reported to sell through marketers, and most also sell direct to end users.

Rad Oil's experience

One satisfied marketer of diesel additives is Rad Oil Co., Purchase, N.Y., which distributes petroleum products to customers and other distributors throughout the Northeast, concentrated within a 150-mile radius of New York City.

Vice president Steven Levy remembers several years ago when premium diesel was mixed up by users in their garages. He says, "We needed a product that I knew worked. I knew Jerry [Nessenson, now president of ValvTect] from another company he was working for [Bell Fuels, Chicago], and when he organized ValvTect, that was enough for me. We tried out the diesel additives and the customers loved them."

Levy explains, "We promote diesel additives as much as we can. At least we give customers an option to be aware of if they're looking to save some money or do something different. There are a lot of products to choose from. They have to find the one that works for them."

Rad Oil markets everything from a straight No. 1 kerojet to straight D2 diesel and all blends between, with and without additives. Additives are growing more important. "Over the past several years," says Levy, "people are more concerned about the environment, about winter effects on fuel, about the effects of a more poorly made grade of fuel refined throughout the world. What we have done is market products for many different uses depending on the customer.

"Each customer is different; each wants different results from the products they buy. In our particular instance, we are a niche marketer—we are one of the largest commercial motor fuel marketers in the country. We believe in looking for ways to save our customers money and improve their efficiency so we can keep them in business and be our customers down the road," he says.

Customers are swinging back to quality. "There's been a definite change in attitude. Twenty years ago, people really cared about quality and the efficiency of the product, but in recent years all they want is lower price. Now, with the economy what it is and the cost of equipment, people are putting more emphasis on value and quality because they know in the long run it's going to save them money," he says.

Levy says about half of the company's diesel fuel is additized in winter. In summer, it is 5-8%. He adds, "Four or five years ago it would have been zero percent."

He figures treat cost in the winter is less than 1¢/gal., just for the winterizing. With detergency and the rest, the year-round treat cost is up to 2¢/gal. plus.

Levy says he can't always recover the additive cost, but he tries. He explains, "You have to get the additive cost someplace. You try to get it into the price if you can. If you can't, you can't. In this marketplace, prices are so competitive. It all depends on the type of customer you're selling to. In most instances, obviously, it's added to the price."

Whether or not Rad Oil can recover the additive costs, Levy believes that they help the business, particularly in rack sales. He explains, "We are also a rack seller of diesel fuel. We sell to people who have throughputs and exchanges in our system. We have to make sure we give them a product that's going to survive in the wintertime. A lot of these people don't care what the quality of the product is. They just want a product that is going to work in the wintertime. If you don't have that product, they are not going to buy from you. And your prices have to be competitive."

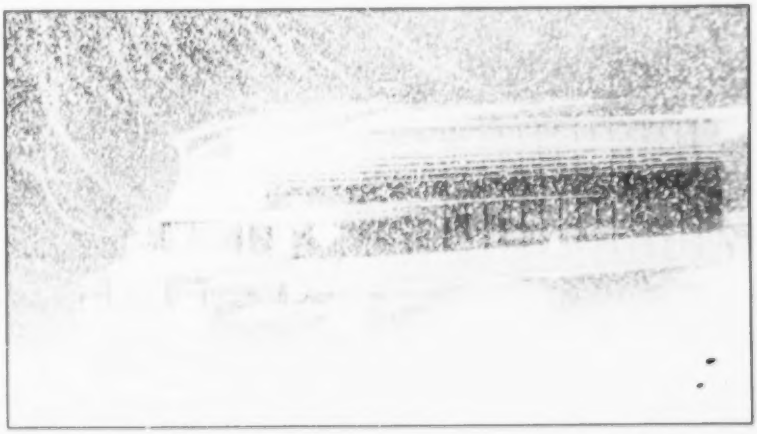
Besides regular diesel, Levy markets a basic premium diesel and also various premium diesels with certain additives by name, such as premium diesel with VT5000 (detergent, dispersant). The additive supplier provides the literature to explain what the products do.

What Zimmer Oil does

Zimmer Oil Co., Omaha, Neb., sells 5-million to 6-million gal. of diesel fuel a year, of which 20-25% is additized in winter and 10% in summer, says Jack Zimmer, one of founder Ray's two sons in the business.

Zimmer's principal business is supplying its 24 stations Conoco, Apco and Union 76 brands. The company uses diesel fuel additives for its own trucks and also sells it to trucking and construction accounts.

Zimmer reports there's been a call for additives, especially in winter, for perhaps 10 years. The first supplier to call on him was Primrose Oil Co., Dallas, but a year or so ago Zimmer Oil switched to ValvTect



Because of widespread reports of regular-grade diesel of unstable quality, cold weather protection with additives is becoming a must for over-the-road equipment. (Courtesy ValvTect)

in Northbrook, Ill., which Jack says has "a better overall program."

Zimmer Oil will sell diesel additives in 55 gal. drums, if that's the way customers want it, at about 1.8¢/gal. If the oil company blends it with diesel fuel, it generally charges about 2¢/gal.

Zimmer says there's not much markup on diesel additives because of competition. He mentions as a case in point Power Service (PS), Weatherford, Tex., perhaps the largest supplier of retail packaged diesel additives in the country. Most PS additives are purchased at truckstops by truckers.

Zimmer still blends No. 1 into No. 2 in the winter, even when using the additive, and isn't convinced it can ever completely be eliminated. "When it's real cold, there's no way you can use an additive and straight No. 2," he says.

Zimmer usually adds 30% No. 1, and in the dead of winter cuts it to 20% with VT5000 additive, lowering cold-filter plug point (CFPP, see below) to around -20°F.

Zimmer thinks his customers wouldn't let him eliminate No. 1 completely. He says laboratory results using VT5000 show a -10 CFPP, adding, "That's not good enough for this part of the country. Most customers want at least -20 CFPP and even -25."

Warmon Oil sees growth

Warmon Oil Co., St. Louis, Mo., now sells diesel additives of Starreon Corp., Englewood, Colo., the newest entrant in the fuel additive business. Warmon started selling ValvTect diesel additives three or four years ago, and was happy with the products, but switched recently to Starreon because of what Gene Warmon considers product improvements.

Warmon is particularly impressed by test results shown in a Starreon videotape, which he uses in promoting diesel additives. In a Society of Automotive Engineers (SAE) TMC Type 2 test, conducted by Claude Travis, former chairman of the maintenance council of the American Trucking Assn., a diesel fuel containing a Starreon additive showed improved efficiency of 8.25% and reduced fuel consumption of 7.62%, the first ever shown in this test to provide fuel savings.

Warmon Oil, which sells 2.5-million to 3-million gal./mo. of diesel fuel spread out fairly evenly through the year, sells 40-45% winterized diesel during the cold months. In the summer about 10% contains a general-purpose additive.

Warmon says, "More and more companies are looking at diesel additives, and more and more are catching on." He reports the city of St. Louis is using it now and the county is considering it. Other users are Granite City Steel and a number of contractors on road grading and other heavy-equipment projects.

Warmon says diesel additives enable his company to improve margins a little, and he reports good customer acceptance.

Warmon Oil still blends No. 1 fuel into No. 2 fuel in the winter, with ratios of 50-50 to 70-30, because some customers specifically request it. But to other customers, it sells unblended winterized diesel fuel protected only with additives and it works.

Winterizing breaks the ice

Winterizing is the main diesel additive business now because the need for protection against icing and gelling at cold temperatures is so widely recognized. It opens the door to year-round sale of additized diesel fuel.

U.S. On-Highway Diesel Fuel Sales (*billion gal.*) 1986-1990

1986	17.927
1987	18.173
1988	20.039
1989	21.132
1990	21.360

(Source: Energy Information Administration, Fuel Oil and Kerosine Sales 1990.)

Mileage improvement, engine cleanliness and other diesel needs are growing in importance, and federal and state regulations are coming that will require cetane improvers, detergents and other additives, providing still another boost for diesel additives.

It's a growing business for marketers, especially while refiners don't seem inclined to participate. When refiner-brand diesel premiums become significant players in the market, if they do, marketers who are experienced in diesel additives can quickly sell refiner brands as well.

Larry Remensnyder, sales vice president of ValvTect, a company formed about five years ago, says the winter diesel additive market is "exploding." It involves using additives that eliminate or reduce use of more costly No. 1 (kerosine) in a blend with No. 2, providing savings.

No. 1 also reduces mileage and lubrication, he says. "If you can use the latest technology of wax crystal modifiers, known as cold-flow improvers, which are greatly improved compared to four or five years ago, you can now replace the first 30% of No. 1. If a customer normally runs a 70-30 blend, he can now run a straight No. 2."

In this example, with the price of No. 1 an average of 8-10¢/gal. higher, straight No. 2 would cost 3¢/gal. less than a 70-30 mixture, eliminating 0.3 gal. of No. 1. The additive would cost less than a penny. The saving is self-evident.

Some refiners use pour-point and cloud-point specifications and call it a winterized diesel fuel, Remensnyder says. "They're not interested in operability specifications, such as the cold-filter plug point (CFPP), developed in Europe 15-20 years ago and now gaining more acceptance in the United States.

"That's an operability test to predict whether your equipment will run at a specific temperature. ValvTect's cold-flow improvers dramatically reduce the CFPP. A refiner may tweak its diesel fuel with a pour-point depressant, but the fuel won't be good enough when sold as No. 2 diesel," he says.

Remensnyder says another reason the market is exploding is that earlier technology didn't do a very good job of reducing CFPP. "Today's technology is much better," he explains, and "we supply our customers, including fuel distributors, with lab testing at no cost to monitor the quality of the fuel they blend and the amount of protection they're supplying with their treated fuel."

The market is expanding also because "confidence breeds confidence," he says. "You've got references you can provide. People are reading articles and becoming more educated about it. They're giving it a try. We supply the support materials to show customers what additives can and cannot do, and they can use it to their best advantage."

ValvTect prides itself on its "business partner" program, where it provides a marketing package to diesel fuel marketers. "They can't afford a staff, three or four levels of management, develop their own advertising, obtain laboratory support," Remensnyder says. ValvTect provides sales seminars, lab testing, personalized brochures and other services.

With additive treat rates averaging 1 part additive to 1100 parts fuel (1:1100), says Remensnyder, ValvTect's 1:1500 treat rate enables marketers or customers to blend a 5 gal. container of additive into a 7,500 gal. transport load, making it easier to use. ValvTect also supplies diesel additives in 55 gal. drums and in bulk.

Winterized diesel fuel breaks the ice with customers, according to Remensnyder. "Once you get a marketer's customer on a winterized premium, which often also has detergents and cetane improvers in it—improving combustion and helping reduce emissions—they love it. Then of course you have a much better

chance of rolling over a winter diesel fuel user to using a summer product."

Starreon spreads out

Mike Hilbert, marketing vice president of Starreon Corp., a 3-year-old fuel additive company in Englewood, Colo., considers all diesel fuel sales, on and off highway, a potential market for diesel additives. On-highway and off-highway sales totaled 23.2-billion gal. in 1990.

"I think the whole market is the potential. Why not?" he asks. "Perhaps it's very difficult to tap the whole market, but honestly I can't think of anybody who wouldn't derive benefits from an additive, whether it be one that reduces cold-weather gelling problems or one that cleans the engine, or whether it be a fixed piece of equipment, such as a generator, that quantifies savings by the number of hours it runs."

He believes further that while the diesel additive market is seasonal now, being mainly winterizing, it won't be in the future, when additives will be required to make engines run clean enough to meet regulations. "Diesel engine manufacturers have done about all they can in engineering," he adds. "The regulations will have to be met with the fuel."

He says tests are under development by diesel engine manufacturers to quantify how much of which diesel additive will result in what amount of engine cleanliness, and the results are dramatic.

The biggest benefits now can be shown from winterizing. Hilbert says, "We've got fleets now into their second and third seasons that went totally without blending in No. 1." He calculates that it only costs the consumer about 1.5¢/gal. for treating a gallon of diesel fuel. With No. 2 at 80¢/gal. and No. 1 at 90¢/gal., a 50-50 blend costs 5¢/gal. more. Another 4¢/gal. can be counted for loss of fuel efficiency, for a total comparison of 1.5¢/gal. versus 9¢/gal.

Until recently Starreon was most active in supplying fleets and other end users, but now the distributor business is taking off, Hilbert reports. "Fuel distributors have been calling us at an increasing rate. We expect that to continue, and we also mean to increase our own activity directly with fuel distributors."

Hilbert says Starreon's treat rates vary from 1:850 for a winter product, Winterflo, to 1:1100, 1:1500, and even 1:2000 and 1:3000, depending on the additive package.

Lubrizol's 'hard sell'

Lubrizol considers the total annual market for diesel fuel additives to be 60-million lb., all classes, including pour-point depressants, cetane improvers, detergents, others. Refiners buy about 50-million lb., according to Glen Blythe, diesel fuel additive marketing manager, and marketers about 10-million lb. He couldn't translate this into gallons because of varying blend and treat rates.

Major refiners continue to ignore the premium diesel market, opening a window of opportunity for independent marketers in the diesel additive market.

Blythe considers the market "hard sell." He says the market has started to grow, but it's up against an image problem because of "the snake oil and unsubstantiated claims" offered by some early products. He adds, "We're working hard to clean that image up, but unfortunately we have a lot of folks out there who haven't gotten religion yet."

Blythe says he was surprised by results of a survey Lubrizol made of 100 fleets a couple of years ago, aimed at finding out what the market was for pour-point depressants, a winterizer. He reports, "20% said they never used them, 20% said year-round, 60% said winter only." This was higher usage than he expected.

Malco competes

Malco Products Inc., Barberton, Ohio, is a big chemical specialty company that sells diesel additives and many other products through its warehouse distributors, but not through independent marketers. John H. Ginley, general manager of the automotive division, says Malco won't sell to marketers because they would compete with its WDs.

Malco distributors sell to service stations, repair shops, car dealers, fleets, construction companies, heavy-duty truckers and others.

Ginley considers the trucker and driver very price conscious and unlikely to be influenced by sales pitches for diesel additives. He thinks, on the other hand, large fleets, which do preventive maintenance studies and know exactly what their mileage is with what product, can justify the use of diesel additives.

Arol in the Northeast

Arol Chemical Products Co., Newark, N.J., markets diesel fuel additives and other chemicals mainly in the Northeast, mostly through marketers. Its main diesel additives, Dieselmax and Dieselmax Summer Blend, are all-purpose, with cetane improver, detergent, water dispersant, rust inhibitor and so on. The difference is that there's no antigel or deicer in the summer blend.

Jerome Sava, technical sales manager, says refiners don't generally use these diesel additives, but trucking companies and drivers increasingly do. He believes 20-30% of diesel fuel is additized in Arol's sales area. "At one time drivers used to just buy a product off the shelf," he says, "but now a lot of the fleets are buying at truckstops where a premium blend diesel fuel is available right at the pump." He says Arol has supplied diesel additives for squite awhile, but "in the last few years there appears to be a major interest in additives."

For a diesel additive that would work in the coldest winter weather, Arol additives would cost about a 1¢/gal., Sava says. "We feel we replace about 30% kerosine. With kerosine 10¢/gal. more generally, there's definitely a saving. The user is getting a better product. It's not being thinned out with kerosine, which tends eventually to cut down cetane or lubrication or mileage. There is definitely an improvement."